CLAIMS

1. Single-component polyorganosiloxane (POS) composition which is stable on storage in the absence of moisture and which crosslinks in the presence of water to give an elastomer, which composition comprises at least one crosslinkable linear alkoxy polyorganopolysiloxane POS, an inorganic filler and a crosslinking catalyst **C** of formula (C):

$$R^f$$
—COO— Sn — OOC — R^f
 R^e
 R^e
 R^e
 R^e
 R^e
 R^e
 R^e
 R^e
 R^e

in which:

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- R^e, which are identical or different, represent a linear or branched C₁-C₈ alkyl radical,
 - x is 0 or 1,
 - when x is 1, R^f, which are identical or different, represent a saturated or unsaturated and linear or branched C₁-C₂₀ alkyl radical optionally comprising one or more oxygen atoms and optionally comprising one or more ester or ether functional groups,
 - when x is 0, R^f, which are identical or different, represent a saturated or unsaturated and linear or branched C₁-C₂₀ heteroalkyl radical comprising one or more O and optionally comprising one or more ester or ether functional groups,

the catalyst being present in an amount corresponding to from 0.05 to 0.35 mmol of tin per 100 g of composition.

2. Composition according to Claim 1, in which the amount of catalystcorresponds to from 0.15 to 0.32 mmol of tin per 100 g of composition.

- **3.** Composition according to Claim 1 or 2, comprising a catalyst of formula $[Bu_2Sn(OOC-C_{11}H_{23})]_2O$.
- **4.** Composition according to one of Claims 1 to 3, comprising a catalyst of formula Bu₂Sn[OOCCH₂(OCH₂CH₂)₃OCH₃]₂.
 - **5.** Composition according to one of Claims 1 to 4, comprising a catalyst of formula Bu₂Sn(OOCCH=CHCOOR)₂, R being an optionally branched C₂-C₈ alkyl radical.

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- **6.** Composition according to Claim 5, comprising a mixture of at least two compounds of formula Bu₂Sn(OOCCH=CHCOOR)₂ comprising radicals R having different numbers of carbon atoms.
- 7. Composition according to any one of Claims 1 to 6, comprising a compound of formula (C) as sole crosslinking catalyst.
 - 8. Composition according to any one of Claims 1 to 6, in which the crosslinking is catalysed by a mixture of at least two compounds of formula (C).

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- 9. Composition according to one of Claims 1 to 8, comprising:
- -A- at least one crosslinkable linear polyorganopolysiloxane A of formula :

in which:

- the substituents R¹, which are identical or different, each represent a saturated or unsaturated, substituted or unsubstituted, aliphatic, cyclanic or aromatic, C₁ to C₁₃ monovalent hydrocarbon radical;

- the substituents R², which are identical or different, each represent a saturated or unsaturated, substituted or unsubstituted, aliphatic, cyclanic or aromatic, C₁ to C₁₃ monovalent hydrocarbon radical;
- the substituents R³, which are identical or different, each represent a linear or branched C₁ to C₈ alkyl radical or a C₃ to C₈ cycloalkyl;
- n has a value sufficient to confer, on the POS A, a dynamic viscosity at 25°C ranging from 1000 to 1 000 000 mPa·s;
- a is zero or 1;
- b is zero or 1;
- -B- optionally at least one polyorganosiloxane resin B functionalized by at least one alkoxy radical (OCH₂CH₂)_bOR³, with b and R³ corresponding to the definition given above, and exhibiting, in its structure, at least two different siloxyl units chosen from those of formulae (R¹)₃SiO_{1/2} (unit M), (R¹)₂SiO_{2/2} (unit D), R¹SiO_{3/2} (unit T) and SiO₂ (unit Q), at least one of these units being a T or Q unit, the radicals R¹, which are identical or different, having the meanings given above with respect to the formula (A), the said resin having a content by weight of (OCH₂CH₂)_bOR³ radicals ranging from 0.1 to 10%, it being understood that a portion of the radicals R¹ are (OCH₂CH₂)_bOR³ radicals :
 - -C- the crosslinking catalyst according to the invention;
 - -D- optionally at least one crosslinking agent D of formula :

$$(R^2)_a Si [(OCH_2CH_2)_b OR^3]_{4-a}$$

with R², R³, a and b as defined above.

-E- optionally at least one unreactive and nonfunctionalized linear polydiorganosiloxane E of formula :

in which:

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- the substituents R¹, which are identical or different, have the same meanings as those given above for the polyorganosiloxane A;
- m has a value sufficient to confer, on the polymer of formula (E), a dynamic viscosity at 25°C ranging from 10 to 200 000 mPa·s;
 - -F- an inorganic filler F, in particular a reinforcing and/or bulking filler, preferably based on silica;
 - -H- an adhesion promoter.
- 10. Composition according to claim 9, in which the adhesion promoter is an organosilicon compound having one or more hydrolysable groups bonded to a silicon atom.
 - 11. Composition according to claim 10, in which the adhesion promoter further has one or more organic groups comprising radicals chosen from the group of the aminated (or diaminated), (meth)acrylate, epoxy, alkenyl and/or alkyl radicals.
 - **12.** Composition according to claim 10 or 11, in which the adhesion promoter is a silane.

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- 13. Composition according to claim 12, in which the adhesion promoter is chosen among the following silanes or a mixture of at least two of them:
 - 3-aminopropyltriethoxysilane,

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- (beta-aminoethyl)(gamma-aminopropyl)trimethoxysilane,
- (beta-aminoethyl)(gamma-aminopropyl)methyldimethoxysilane,
- 3-aminopropyltrimethoxysilane,
- vinyltrimethoxysilane,
- 3-glycidyloxypropyltrimethoxysilane,

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- 3-methacryloxypropyltrimethoxysilane,
- propyltrimethoxysilane,
- methyltrimethoxysilane,

- ethyltrimethoxysilane,
- vinyltriethoxysilane,
- 3-aminopropylmethyldimethoxysilane,
- 3-aminopropylmethyldiethoxysilane,
- methyltriethoxysilane,
- propyltriethoxysilane,
- tetraethoxysilane,
- tetrapropoxysilane,
- tetraisopropoxysilane,
- or polyorganosiloxane oligomers comprising such organic groups at a content of greater than 20%.
 - **14.** Composition according to claim 9, in which the adhesion promoter is a silicate.
 - **15.** Composition according to claim 14, in which the adhesion promoter is an optionally polycondensed ethyl, propyl or isopropyl silicate.
- 16. Elastomer capable of adhering to various substrates and obtained20 by crosslinking and curing the composition according to any one of the preceding claims, containing an adhesion promoter.
 - 17. Use of at least one tin compound C of formula (C):

$$\begin{array}{c|c}
R^{f} & \hline
 & R^{e} \\
\hline
 & R^{e} \\$$

25 in which:

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- when x is 1, R^f, which are identical or different, represent a saturated or unsaturated and linear or branched C₁-C₂₀ alkyl radical optionally comprising one or more oxygen atoms and optionally comprising one or more ester or ether functional groups,
- when x is 0, R^f, which are identical or different, represent a saturated or unsaturated and linear or branched C₁-C₂₀ heteroalkyl radical comprising one or more O and optionally comprising one or more ester or ether functional groups,
- as catalyst for the crosslinking by polycondensation of an alkoxy singlecomponent silicone elastomer composition not comprising another polycondensation catalyst, the catalyst being used in an amount corresponding to from 0.05 to 0.35 mmol of tin per 100 g of the composition.

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